

AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A receiver for recovering data for at least one of a plurality of users from radio signals ~~generated by said~~ associated with the plurality of users, ~~said the~~ receiver comprising:

~~a plurality of~~ data detectors, each of the data detectors being associated with one of a plurality of temporal displacements ~~in a~~ of communications paths ~~channel~~ through which the radio signals pass ~~passed~~, each of ~~said the~~ data detectors to estimate a user data symbol for one of ~~said the~~ plurality of users from at least one of the ~~received~~ radio signals;

a signal strength estimator to ~~determine~~ estimate signal strengths of the radio signals; and

a receiver controller to assign ~~the~~ user codes and ~~the~~ temporal displacements to ~~each of~~ ~~said the plurality of data detector~~ detectors according to the signal strengths of the radio signals, the receiver controller assigning a first user code for a first user to a first number of data detectors and a second user code for a second user to a second number of data detectors, the first number of data detectors having different temporal displacements than the second number of data detectors.

2. (Currently Amended) The receiver of claim 1, wherein ~~said the first number of data~~ detectors is greater than the second number of ~~receiver controller assigns more of said data~~

detectors ~~to the first user~~, and wherein a radio signal for the first user having has a weaker signal strength than a radio signal for the second user.

3. (Currently Amended) The receiver of claim 1, wherein ~~said~~ the first number of data detectors is greater than the second number of receiver controller assigns more of said data detectors to the first user, and wherein a radio signal for the first user having has a stronger signal strength than a radio signal for the second user.

4. (Cancelled)

5. (Currently Amended) The receiver of claim 1 ~~2~~, further comprising:
a combiner to combine ~~the~~ estimated user data symbols ~~associated with~~ for the first user to form a composite symbol ~~symbols~~.

6. (Currently Amended) The receiver of claim 1 ~~5~~, further comprising a data store to store the radio signals, the radio signals being received within a pre-determined time window, wherein the ~~stored~~ radio signals are input to ~~said~~ the data detectors from the data store under control of ~~said~~ the receiver controller.

7. (Currently Amended) The receiver of claim 1 ~~3~~, wherein ~~said~~ the data detectors ~~detector means~~ comprise rake fingers, the user ~~specific~~ codes comprise spreading codes, and the

radio signals ~~from the plurality of users~~ are generated in accordance with a code division multiple access (CDMA) process.

8. (Currently Amended) The receiver of claim 1 6, wherein ~~said the~~ the signal strength estimator re-estimates ~~the signal strength~~ strengths of the radio signals at the temporal displacements, and ~~said the~~ receiver controller re-assigns the user codes and the temporal displacements to the plurality of data detectors in accordance with ~~the~~ re-estimated strengths ~~strength~~ of the radio signals.

9. (Currently Amended) A method of recovering data for at least one of a plurality of users from radio signals ~~generated by said~~ associated with the plurality of users, ~~said the~~ method comprising:

~~estimating data symbols with a plurality of data detector means, wherein said estimating comprises assigning, to each of plural the plurality of data detectors, detector means to (i) one of a plurality of user specific codes, and (ii) one of a plurality of temporal displacements in that correspond to a communications paths channel through which the radio the received signals pass passed;~~

estimating user data symbols using the data detectors and the radio signals;

determining signal strengths of the radio signals; and

re-assigning the plurality of user ~~specific~~ codes and the plurality of temporal displacements to ~~each of the plurality of data detectors; detector means,~~

wherein the ~~re-assignment~~ re-assigning assigns a first user code for a first user ~~for~~ to a first number of data detectors ~~detector means~~ and a second user code for a second user to a second number of data detectors ~~detector means~~, the first number of data detectors ~~detector means~~ having different temporal displacements than the second number of data detectors.

10. (Currently Amended) The method of claim 9, wherein the first number of data detectors is greater than the second number of data detectors, and re-assigning assigns more of the data detector means to the first user, a radio signal for the first user having has a weaker signal strength than a radio signal for the second user.

11. (Currently Amended) The method of claim 9, wherein ~~re-assigning assigns more of the data detector means to the first user,~~ the first number of data detectors is greater than the second number of data detectors, and a radio signal for the first user having has a stronger signal strength than a radio signal for the second user.

12. (Currently Amended) The method of claim 9 ~~10~~, further comprising ~~comprises~~ combining ~~the~~ estimated user data symbols ~~associated with~~ for the first user to form a ~~into a~~ ~~corresponding~~ composite symbol.

13. (Currently Amended) The method of claim 9 ~~12~~, further comprising:
storing the ~~received~~ radio signals, the radio signals being received within a pre-determined time window; and

re-estimating ~~the~~ user data symbols ~~for the~~ using stored radio signals and data detectors
with re-assigned user codes and temporal displacements ~~from the stored radio signals~~.

14. to 18. (Cancelled)

19. (Currently Amended) The method of claim 13, further comprising:

~~re-estimating~~ re-determining the signal ~~strength~~ strengths of the ~~received~~ stored radio
signals ~~signal at the temporal displacements~~; and

re-assigning ~~the plurality of~~ user codes to the data detectors ~~detector means~~ in accordance
with ~~the~~ signal strengths ~~relative strength~~ of said the stored ~~received~~ radio signals.

20. (Currently Amended) The method of claim 13, further comprising:

re-generating ~~the received~~ radio signals ~~associated with~~ for the first user, said wherein re-
generating comprises combining ~~the~~ estimated user data ~~symbol~~ symbols with one of the
plurality of user specific codes ~~according to a temporal displacement~~.

21. (Currently Amended) The method of claim 20, further comprising:

subtracting ~~the~~ a re-generated signal from ~~the received~~ a corresponding radio signal prior
to re-estimating the user data symbol.

22. (Currently Amended) The method of claim 9 ~~13~~, wherein the ~~plurality of~~ data detectors ~~detector means~~ comprise rake fingers and the user ~~specific~~ codes comprise ~~comprising~~ spreading codes.

23. (Currently Amended) The method of claim 9 ~~22~~, wherein the radio signals are generated in accordance with a code division multiple access process.

24. (Currently Amended) The receiver of claim 6 ~~1~~, further comprising:
a signal re-generator ~~means~~ coupled to ~~said the~~ data detectors ~~detector means~~, ~~said the~~ signal re-generator ~~means~~ to re-generate ~~the a~~ radio signals signal for ~~associated with~~ the first user by combining ~~the an~~ estimated user data symbol for the first user with one of the ~~plurality of~~ user-specific user codes ~~according to a temporal displacement~~.

25. (Currently Amended) The receiver of claim 24, wherein each of the ~~said~~ data detectors ~~detector means further~~ comprises:
subtracting means to subtract ~~the a~~ regenerated radio signal from ~~the a~~ corresponding radio signal prior to ~~estimation of the~~ estimating a user data symbol ~~symbols~~.

26. (Cancelled)

27. (Currently Amended) The receiver of claim 5 ~~1~~, further comprising:

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a single processor that includes the ~~including said~~ combiner ~~means~~ and ~~said~~ the signal strength estimator ~~means~~, wherein ~~said~~ the receiver controller controls ~~said~~ the single processor.